

BART Agreement Number: 6M8143

Approval Date: 12/29/22

Work Plan No. B.25-01 Perform Existing Utility Survey at Hayward Yard

Scope:

Task 1 – Database Schematic Creation: The contractor will work with BART stakeholders to identify a desired set of attributes by meeting with utility managers at BART. Once the list of attributes is identified (horizontal location, estimated depth, utility type etc.), the contractor will develop a template GIS database populated with the selections.

Task 2 – Field Data Collections: Existing as-built information for the survey area will be provided to the contractor prior to site visits. The contractor shall field verify the utilities from the as-built data and surface scan the entire survey area to identify all existing utilities that are not in the as-builts within the Hayward Yard. The contractor shall determine the location and desired attributes of the utilities. The scanning procedures utilized will be Electronic Detection (ED), and Ground Penetrating Radar (GPR). Potholing will also be performed to positively confirm additional information. A potholing plan will be submitted to BART for approval.

Utility location markers will be installed to record the physical the locations in the yard.

Task 3 – Data Validation and Processing: The contractor will validate and process all information gathered in the field, using it to develop a GIS database which will be provided to BART. The format of the GIS database will be compatible with BART’s E-GIS system and include industry-standard metadata documentation. The contractor will also prepare a draft and final technical memorandum describing the methods and results.

Task 4 – Application Support: Once all information and the GIS database has been provided to BART, the contractor will provide support for the integration of the GIS data into the E-GIS system.

All work shall be performed in accordance with District quality guidelines. Quality assurance shall include documented quality checks of all deliverables and documents, as well as pre-start and post-completion checklists.

Prime: HDR

Subconsultant	Amount	DBE (Y/N)	SBE (Y/N)
Exaro Technologies Corporation	\$ 426,723	N	Y

Total Work Plan Value: \$ 636,496